

REMARKS

Applicants respectfully request that this amendment be entered, and that their subject U.S. Patent application be passed to issuance in view thereof. Applicants respectfully submit that the amendments to claim 20 more clearly define Applicants' invention by incorporating the limitations of canceled claim 21 and, as such, does not require further search by the Examiner.

Claims 10, 12-43 and 45-47 are pending in the subject application. Applicants respectfully request that claims 20 and 46 be amended, and claims 21-43 be canceled.

In the Office Action, claim 46 has been amended to adopt the Examiner's suggestion to address the 112 rejection of record. Accordingly, Applicants respectfully submit that the 112 rejection has been traversed.

In the Office Action, the pending claims stand rejected on 103 grounds, based on the Long et al. patent (U.S. Patent No. 6,306,710 hereinafter referred to as "Long") in combination with the other references of record. In response, Applicants respectfully submit that claim 20, as amended, and claim 46 are not taught or suggested by Long, alone or in combination with the other references of record. Applicants invention provides for a T-shaped gate having an air gap as shown in FIG. 3e of the present application.

Applicants respectfully submit that the Long patent neither teaches nor suggests the invention as recited in the claims as presented herein. For example, as Long shows in FIGS. 11 and 12, and discusses in column 3, lines 50-57 and column 7, lines 36-59, Long conformally deposits a spacer dielectric along exposed surfaces of the gate structure in order to provide a rectangular shaped spacer dielectric after an etch process. Long provides a gate structure having a length that is longer at the top of the gate structure and shorter through the gate structure so that the resulting shape of the spacer dielectric can be affected. Long requires that the spacer dielectric be formed directly on the exposed surfaces of the gate structure so that the final spacer dielectric shape is rectangular. The exposed surfaces of the gate structure act as a "guide" for the

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spacer dielectric to follow so that the desired rectangular shape is achieved. Long teaches away from forming an air gap since the formation of an air gap in Long would result in the spacer dielectric not following the shape of the gate structure and would not result in the rectangular shape desired by Long. An air gap formed in Long would result in the spacer dielectric having a thickness at the bottom of the gate structure which would be greater than a thickness at the top of the gate structure which is the situation which Long is attempting to prevent by providing a tapered gate structure for the spacer dielectric to conform to so that the thickness of the spacer dielectric is approximately equal at the top and bottom of the gate structure. Therefore, Long provides no motivation to one of ordinary skill in the art to incorporate an air gap with the gate structure.

Since this feature of the invention is neither taught nor suggested by Long, alone or, in combination with Lin as suggested by the Examiner, Applicants respectfully submit that the prior art rejections of record to claims 20 and 46 (as well as the other pending claims depending thereon) have been traversed.

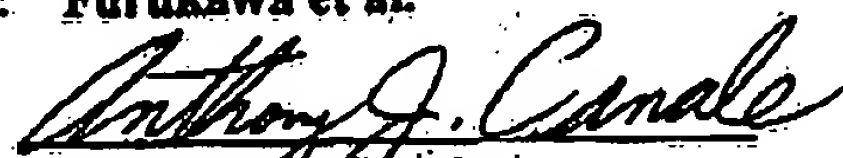
CONCLUSION

Accordingly, Applicants respectfully request entry of the present Amendment and passage of their subject application to issuance in view thereof. Should the Examiner have any comments, questions, or suggestions, please do not hesitate to contact the undersigned agent at the telephone number and/or email address set forth below.

Respectfully submitted,

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